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P. O. Box 464
 Golden, Colorado 80402-2677
 Phone: (303) 966-2677
 Fax: (303) 966-8244

August 7, 1996

96-RM-TA-0151-KH

Randy Leitner, Program Manager
 Compliance & Performance Assurance
 Kaiser-Hill Company, L.L.C.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CLOSURE PLANS FOR BUILDINGS 883,
 865, 866 AND 889 PROCESS WASTE WATER TANK SYSTEMS - GRK-198-96

Action: Transmit RCRA Closure Plans

Rocky Mountain Remediation Services, L.L.C. (RMRS) is submitting the attached RCRA Closure Plans for the Process Waste Water Tank Systems in Buildings 883, 865, 866 and 889 at the Rocky Flats Environmental Technology Site.

Also attached are draft transmittal letters to DOE, RFFO and CDPHE. We request that the attached closure plans be submitted to DOE, RFFO at your earliest convenience. Please note that there is a regulatory requirement to complete these closures within 180 days of approval. We recommend that the closure activities in these plans be integrated with the Rocky Flats Cleanup Agreement and the Integrated Site-wide Baseline.

If you have any questions, please contact Kirk Ticknor at extension 6344.

Gary R. Konwinski, Manager
 Performance Assurance

Attachments:
 As Stated

cc:

K.	North	-	Kaiser-Hill
J. K.	Wrapp	-	Kaiser-Hill
W. M.	Wierzbicki	-	SSOC
J. F.	Ross	-	SSOC
C. C.	Jierree	-	RMRS
V. L.	Orozco	-	RMRS
K. W.	Ticknor	-	RMRS
M. T.	Stanley	-	LATA
M. S.	Simmons	-	MSC

RMRS Records Center, Building 080



Best Available Copy

IA-A-000710

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August XX, 1996

96-RF-XXXXX

Steven Tower, Director
Environmental Assessment Group
Rocky Flats Field Office
U.S. Department of Energy

Attn: Dave Grosek

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CLOSURE PLANS FOR BUILDINGS 883,
865, 866 AND 889 PROCESS WASTE WATER TANK SYSTEMS - RML-XXX-96

Kaiser-Hill Company, L.L.C. is submitting the attached RCRA Closure Plans for the Process Waste
Water Tank Systems in Buildings 883, 865, 866 and 889 at the Rocky Flats Environmental
Technology Site.

Also attached is a draft transmittal letter to CDPHE. Please transmit this closure plan to the
Colorado Department of Public Health and Environment (CDPHE) as soon as possible. Please note
that there is a regulatory requirement to complete these closures within 180 days of approval.
We recommend that the closure activities in these plans be integrated with the Rocky Flats
Cleanup Agreement and the Integrated Site-wide Baseline.

If you have any questions, please call me at extension 3537.

Randy M. Leitner, Program Manager
Compliance & Performance Assurance

Attachments:
As Stated

Original and 1 cc:
Steven Tower

cc w/Attachments:
D. Maxwell - DOE, RFFO
K. North - Kaiser-Hill
K. W. Ticknor - RMRS

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DRAFT

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Mr. Joe Schieffelin, Unit Leader
Hazardous Waste Monitoring and Enforcement
Colorado Department of Public Health and the Environment
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Dear Mr. Schieffelin:

The United States Department of Energy, Rocky Flats Field Office (DOE, RFFO) is submitting the attached RCRA Closure Plans for the Process Waste Water Tank Systems in Buildings 883 865, 866 and 889 at the Rocky Flats Environmental Technology Site.

In addition, this correspondence also provides the required forty-five day notification per guidelines provided in the Colorado Hazardous Waste Regulations 6 CCR 1007-3, Part 265.112(d) prior to commencing closure. We request that these plans be approved by your office at your earliest convenience.

If you have any questions, please contact David Maxwell, of my staff, at 966-4017.

Sincerely,

Bob April, Director
Environmental Liaison Division

Enclosure:
As Stated

cc w/enclosure:

C.	Alstatt	-	CDPHE
C.	Gilbreath	-	CDPHE
D.	Maxwell	-	DOE, RFFO
D.	Grosek	-	DOE, RFFO
R.	Leitner	-	Kaiser-Hill
W. M.	Wierzbicki	-	SSOC
J. F.	Ross	-	SSOC
K. W.	Ticknor	-	RMRS

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RCRA CLOSURE PLANS

- Building 883 A & B Series Process
Waste Water Tank System
- Building 883 Nitric Acid
Waste Water Tank System
- Building 865/866/889 Process
Waste Water Tank System

August 1996



RCRA Closure Plan
Building 883
A & B Series Process Waste Water Tank System
(Partial System Closure)

EPA ID No. C07890010526

August 1996

Exempt from Classification
Per CEX-003-95-RCRA Only

1.0 Introduction

1.1 Purpose

This closure plan identifies the A and B series process waste water tank system in Building 883 that is to undergo Resource Conservation and Recovery Act (RCRA) closure at the Rocky Flats Environmental Technology Site (RFETS). This process constitutes partial closure of the RFETS facility. Closure of this tank system and associated facilities will eliminate all RCRA permitted features with the exception of below-grade piping and process sumps.

1.2 Regulatory Requirements

This closure plan is being submitted in accordance with Section 265.112(d)(1) of the Code of Colorado Regulations (6 CCR), which requires that facilities intending to close interim status units submit a plan detailing the closure activities at least 45 days prior to commencing closure. This plan addresses specific closure requirements contained in 6 CCR, Part 265, Subpart G - Closure and Post-closure, and Subpart J - Tanks.

Although there is a regulatory requirement to demonstrate financial responsibility this is a government owned facility. Demonstration of financial responsibility is not required for government-owned facilities, pursuant to 6 CCR, Section 266.10(c).

1.3 Facility History

Rocky Flats Environmental Technology Site is owned and operated by the U.S. Department of Energy (DOE) and is co-operated by Kaiser-Hill Company, L.L.C. The original mission of the site was production of metal components for nuclear weapons. In support of this mission, Building 883 was utilized to machine and shape metal components such as uranium and beryllium. The A and B series tanks were utilized to manage process waste solutions associated with the metal processing. These solutions were subsequently transferred to the Building 374 evaporator for treatment.

Currently, Building 883 is being decontaminated and converted for economic development purposes by Manufacturing Sciences Corporation (MSC). Following decontamination and RCRA closure, a contractor will utilize Building 883 to refabricate various metal components into commercial products.

1.4 Facility Contact

The RFETS contact for closure activities is:

Manager, Rocky Flats Field Office
U.S. Department of Energy
P.O. Box 928
Golden, Colorado 80402-0928
Phone: (303) 966-2025

2.0 Unit Description and Waste Characterization

The Building 883 process waste system contains the A-Series tanks, RCRA Units 40.39, 40.40, and 40.41 and the B-Series tanks, RCRA Units 40.29, 40.30, 40.31, and 40.38. The tanks were utilized to store and recycle process waste water solutions potentially containing acids, barium, beryllium, cadmium, chromium, lead, mercury, silver, uranium oxide, hazardous solvents (e.g., carbon tetrachloride, chloroform, 1,1-dichloroethane, 1,1,1-trichloroethane), non-hazardous solvents, wax, and detergent prior to transferring these solutions to the waste water treatment system in Building 374. Ancillary equipment associated with the tanks includes pipes, pumps, valves and a process waste transfer line leading to Building 374. Diagrams of the process waste system are shown on Figures 1, 2, 3, and 4. These diagrams also indicate portions of the tank system which did not manage hazardous waste and are therefore not subject to closure.

Records associated with the secondary containment systems indicate that some releases took place. There is some staining associated with the containment systems surrounding the tanks in Room 1 and on the floor underneath the transfer station in Room 105. Therefore, cleaning of the secondary containment structures will be undertaken in areas where releases occurred as well as containment areas surrounding the tanks.

3.0 Closure Performance Standard

The closure performance standard specifies that hazardous waste facilities are to be closed in a manner that minimizes the need for further maintenance at the facility and protects human health and the environment by controlling, minimizing, or eliminating potential releases of hazardous waste to the environment (6 CCR, Section 265.111). Specific closure performance standards for each of the components of this system are defined in the following subsections.

The A-Series and B-Series tanks are not required for future use and therefore they will be stripped out and managed as hazardous debris. The tank information sheets, Figures 5 through 11, indicate that the tanks were authorized under interim status to store a variety of waste codes. The tanks will be rinsed with appropriate solution for decontamination of removable oil and sludges, cut into pieces, and cleaned with CO2 blasting or other approved decontamination methods specified in 6 CCR, Section 268.45. Guidelines for appropriate decontamination solutions can be found in the tables located in the decontamination section of the Rocky Flats Part B Permit.

The closure performance standard proposed for the tanks is to clean the surfaces that contacted RCRA-listed hazardous wastes to a clean debris standard using approved debris rule treatment alternatives and extraction technologies as defined in 6 CCR, Part 268.45, footnote 3 to Table 1:

"The surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to not more than 5 percent of each square inch of surface area."

Debris that is treated by an extraction or destruction technology as specified in 6 CCR, Part 268.45 not exhibiting the characteristic of a hazardous waste, will be managed as non-hazardous debris in accordance with 6 CCR, Part 268.45(c).

After decontamination, the tanks and equipment will be visually inspected to evaluate if the equipment has achieved the clean debris surface standard. If the inspection or cleaning becomes technically infeasible or unsafe due to radiological concerns, the resulting waste will be managed as RCRA-regulated mixed waste. Upon meeting the closure performance standards, all decontaminated equipment will be packaged and managed according to waste type.

Additionally, the clean closure standard as discussed in the Rocky Flats Part B Permit will be utilized as the standard to which the floors will be decontaminated. If the final rinsate indicates that the standard has been achieved the floors will be considered closed. The secondary containment will be evaluated against clean closure standards for only the hazardous wastes that were actually managed in the system as described in Section 2.0. If the standards are not initially achieved, additional washing and rinsing will be conducted.

4.0 Closure Activities

The following sections provide specific information concerning the activities that will govern the RCRA closure of the tanks and ancillary equipment. If, at any time, closure of these systems becomes technically impractical or unsafe, any portion or all of the tank system may be stripped out, characterized, and managed appropriately.

4.1 Preparation of Work Controls

Work controls governing the closure activities will be prepared prior to initiating closure of this system. An engineering progression that logically closes the system will be developed for the tanks and ancillary equipment. The work controls will address health and safety requirements, preparation of radiological containment systems, personal protective equipment (PPE) needs, and waste packaging requirements.

4.2 System Closure Activities

4.2.1 Closure of the A-Series and B-Series Tanks

The A-Series and B-Series tanks will be removed in order to undergo cleaning and evaluation against the clean debris standards previously established. Tank removal will be performed using temporary containment structures or enclosed portions of existing rooms. The containment area will be ventilated using portable HEPA filter air movers. Following washing and rinsing of the tanks, a cutter will be utilized to reduce the size of the tanks into manageable pieces. The pieces will be transferred into a containment structure with an attached HEPA filter air mover to ensure airflow movement away from personnel. Once into the containment structure, the system components will be cleaned with a carbon dioxide (CO₂) pressure cleaner or other approved decontamination method specified in 6 CCR, Section 268.45. The CO₂ cleaning process will take place in a containment structure that currently exists within Building 883. The advantage to this cleaning process is that it is aggressive and leaves no residue other than the materials that are removed from the equipment. Consequently, there is no generation of additional liquid wastes. After cleaning, the surface of each component will be visually inspected to evaluate if the closure standard has been met. If a clean surface has not been achieved, the process will be repeated. If a clean surface cannot be achieved with additional cleaning, the affected segment will be managed as hazardous waste. Following cleaning of the final tank system component, the containment structure for the CO₂ cleaner will be cleaned by removing residual hazardous wastes.

4.2.2 Closure of Ancillary Equipment

The ancillary equipment consists of pipes, valve vaults, and pumps. Loose oil and sludges in the ancillary equipment will be removed by washing with an appropriate decontamination solution. Following washing and rinsing, the ancillary equipment will be stripped out and managed as hazardous waste. The waste will be relocated to an appropriate storage area awaiting disposal.

4.2.3 Closure of Sumps and Below-Grade Piping

The 883 process waste system has below grade sumps and piping that are located below the floor slab of the building. The sumps have been previously decontaminated and will be covered with durable materials and sealed. Final disposition of the sumps will be deferred until building decommissioning takes place. Below grade piping will be rinsed. The below grade pipes will be physically isolated from the building and left in place to be removed during the building decommissioning process.

4.2.4 Closure of Secondary Containment

Secondary containment area for the tanks in Room 1 as well as the floor underneath the transfer station in Room 105 will be clean closed. The closure will involve washing the floor with an appropriate cleaning solution, scrubbing the floor and rinsing the floor three times. The final rinsate water will be sampled to determine compliance with the closure standards for the hazardous constituents identified in Section 2.0 of this plan. If the closure standards are not achieved, washing and rinsing will be repeated until the appropriate standards are achieved.

4.3 Characterization and Disposition of Wastes Generated During Closure

Waste to be generated during closure consists, almost exclusively, of steel. Additionally, liquids and sludges will be produced, characterized, and managed in accordance with applicable waste regulations.

All wastes will be packaged to meet appropriate requirements. The mixed waste, consisting primarily of sludges, will be characterized and managed as hazardous waste pending final treatment or disposal. Metal materials are expected to meet debris standards and therefore will be disposed of as non-hazardous waste. Metals that do not meet these standards will be characterized appropriately and managed as low-level mixed hazardous waste. PPE, as well as contamination control plastic, adhesive material, and wipes, will be managed as low-level waste or low-level mixed waste as appropriate.

5.0 Waste Generation Rates

5.1 Estimated Liquid Waste

The estimated amount of liquid waste to be generated from the wash and rinse of A-Series and B-Series tanks as well as the floors, sumps, and associated piping is determined by the physical dimensions of the system components. Sufficient wash and rinse cycles will be utilized until the appropriate closure standards have been met. The amount of liquid waste to be generated from this closure activity per wash cycle is estimated to be less than 8,000 gallons.

5.2 Estimated Solid Waste

Solid waste generation will be directly related to the type of equipment that is removed and the amount of decontamination that takes place. The process waste tank system was utilized to transfer uranium bearing solutions. Therefore, the majority of the solid waste is expected to be low-level radioactive waste. Approximately 7 tons of low-level waste is expected to be generated.

Additionally, there will be solid waste in the form of combustibles such as wipes, PPE, and plastic. It is estimated that approximately three 55-gallon drums of these low-level waste materials will be produced.

6.0 Certification of Closure

Within 60 days after completion of closure activities, the Site will submit, to the Colorado Department of Public Health and Environment, certification that the tanks, piping, ancillary equipment, and secondary containment, have been closed in accordance with the approved closure plan. The certification will be signed by the owner, or operator of the facility and by an independent, Colorado-registered professional engineer.

7.0 Criteria for Determining Post-Closure Care

The soils and ground water under Building 883, are discussed in the Historical Release Report, and may be contaminated. Additionally, the below grade piping system and the sumps will not be entirely decontaminated. Consistent with the Rocky Flats Cleanup Agreement, these RCRA components will be isolated from the building and final closure will be deferred until remediation of the soils under Building 883 commences.

8.0 Record Keeping

The site will maintain the following closure records until final closure of the facility.

- Record of sampling activities (date, number, and type)
- Analytical results
- Records of actions taken to decontaminate equipment or structures
- Work control packages governing the closure of this RCRA system
- Other documentation which verifies that the Site followed the approved closure plan

9.0 Amendment of Closure Plan

In conducting closure, unexpected events that occur during the implementation of required closure activities may require an amendment of the existing closure plan. Any request for the modification of the closure plan will be made within 30 days of identification of the event that causes modification to be necessary.

10.0 Closure Schedule

The closure of the Building 883 process waste system is expected to commence upon approval of this closure plan and be completed within 180 days subject to the agreements, terms, and conditions of the Rocky flats Cleanup Agreement. Following closure activities and verification of a successful project, Building 883 will be utilized by a contractor for proposed manufacturing purposes.

FIGURE 1
Building 883 Process Waste Line Floor Plan

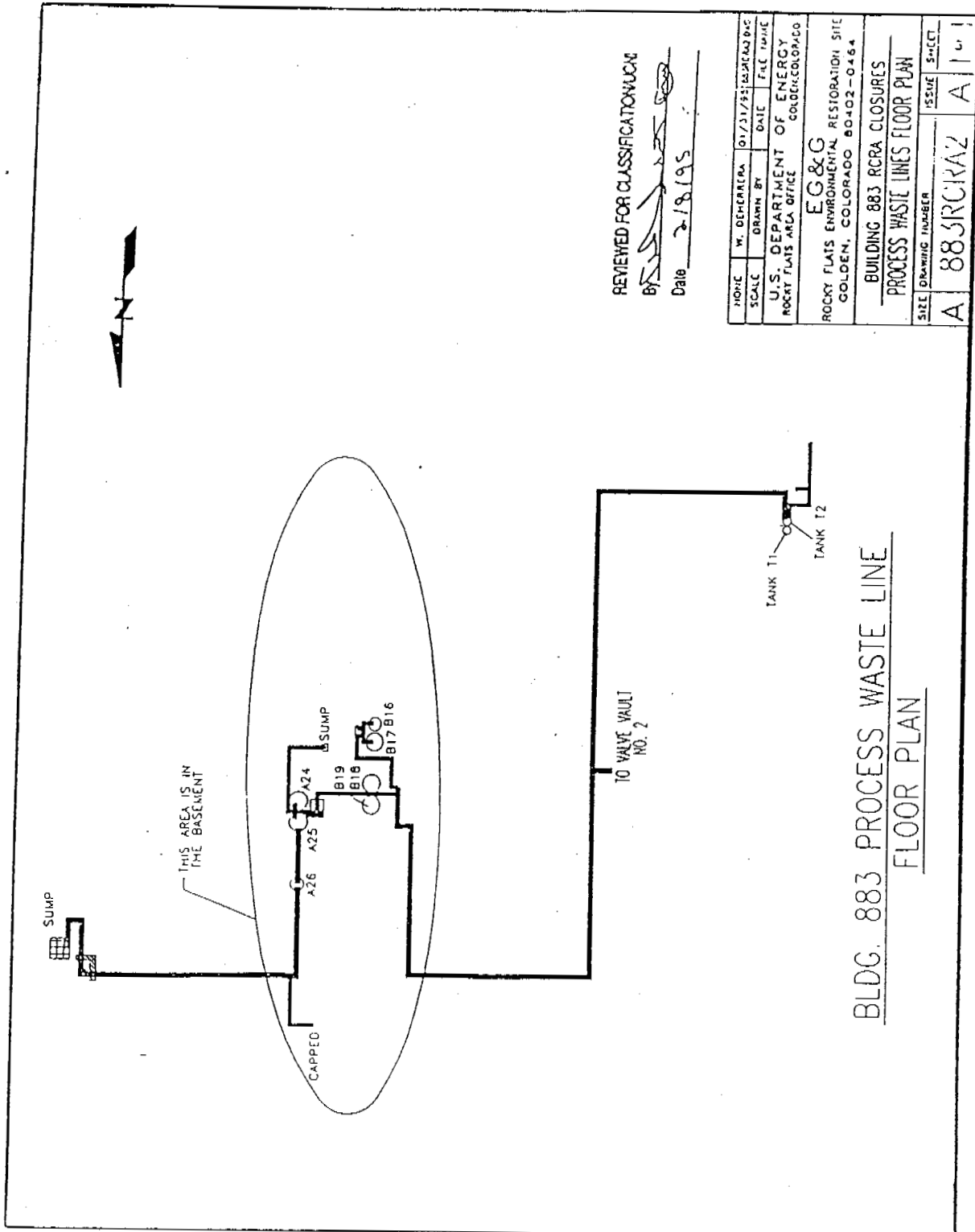


FIGURE 2
Secondary Containment Diagram

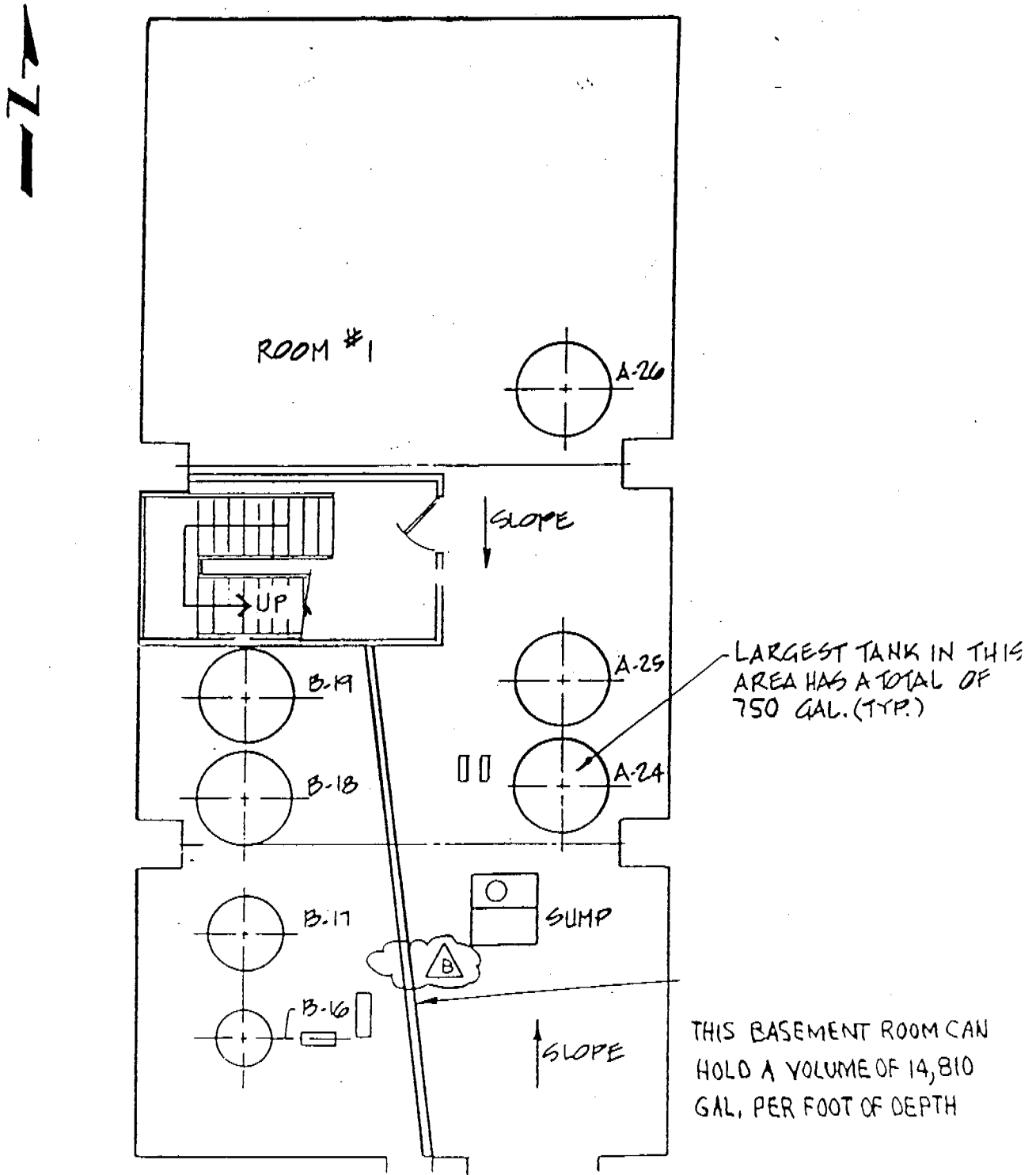


FIGURE 3

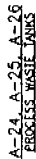


FIGURE 5

Tank Information Sheet

Unit Number:	40.39
Building:	883
Room:	1
Tank Number:	A-24
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	750 gal.
Dimensions:	4.8 ft. x 5.0 ft. D
Material of Construction:	Welded Carbon Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

FIGURE 6

Tank Information Sheet

Unit Number:	40.40
Building:	883
Room:	1
Tank Number:	A-25
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	750 gal.
Dimensions:	4.8 ft. x 5.0 ft. D
Material of Construction:	Welded Carbon Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

FIGURE 7

Tank Information Sheet

Unit Number:	40.41
Building:	883
Room:	1
Tank Number:	A-26
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	750 gal.
Dimensions:	4.5 ft. x 4.0 ft. D
Material of Construction:	Welded Carbon Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

FIGURE 8

Tank Information Sheet

Unit Number:	40.29
Building:	883
Room:	1
Tank Number:	B-17
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	350 gal.
Dimensions:	4.5 ft. x 4.0 ft. D
Material of Construction:	Welded Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

FIGURE 9

Tank Information Sheet

Unit Number:	40.30
Building:	883
Room:	1
Tank Number:	B-18
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	750 gal.
Dimensions:	4.5 ft. x 5.0 ft. D
Material of Construction:	Welded Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

FIGURE 10

Tank Information Sheet

Unit Number:	40.31
Building:	883
Room:	1
Tank Number:	B-19
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	750 gal.
Dimensions:	4.5 ft. x 5.0 ft. D
Material of Construction:	Welded Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

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FIGURE 11

Tank Information Sheet

Unit Number:	40.38
Building:	883
Room:	1
Tank Number:	B-16
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	500 gal.
Dimensions:	4.5 ft. x 4.0 ft. D
Material of Construction:	Welded Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

RCRA Closure Plan
Building 883
Nitric Acid Process Waste Water Tank System
(Partial System Closure)

EPA ID No. C07890010526

August 1996

Exempt from Classification
Per CEX-003-95-RCRA Only

1.0 Introduction

1.1 Purpose

This closure plan identifies the nitric acid process waste water tank system in Building 883 that is to undergo Resource Conservation and Recovery Act (RCRA) closure at the Rocky Flats Environmental Technology Site (RFETS). This process constitutes partial closure of the RFETS facility. Closure of this tank system and its secondary containment will eliminate all RCRA permitted features for the nitric acid process waste system.

1.2 Regulatory Requirements

This closure plan is being submitted in accordance with Section 265.112(d)(1) of the Code of Colorado Regulations (6 CCR), which requires that facilities intending to close interim status units submit a plan detailing the closure activities at least 45 days prior to commencing closure. This plan addresses specific closure requirements contained in 6 CCR, Part 265, Subpart G - Closure and Post-closure, and Subpart J - Tanks.

Although there is a regulatory requirement to demonstrate financial responsibility this is a government owned facility. Demonstration of financial responsibility is not required for government-owned facilities, pursuant to 6 CCR, Section 266.10(c).

1.3 Facility History

Rocky Flats Environmental Technology Site is owned and operated by the U.S. Department of Energy (DOE) and is co-operated by Kaiser-Hill Company, L.L.C. The original mission of the site was production of metal components for nuclear weapons. In support of this mission, Building 883 was utilized to machine and shape metal components such as uranium and beryllium. The nitric acid process waste tank system was designed to capture spent nitric acid from the etching baths, neutralized acid fumes from the etching baths, and rinse water from the sheet scrubber. The contents of the nitric acid tanks were neutralized with caustic prior to transfer to the Building 374 evaporator for treatment.

Currently, Building 883 is being decontaminated and converted for economic development purposes by Manufacturing Sciences Corporation (MSC). Following decontamination and RCRA closure, a contractor will utilize Building 883 to refabricate various metal components into commercial products.

1.4 Facility Contact

The RFETS contact for closure activities is:

Manager, Rocky Flats Field Office
U.S. Department of Energy
P.O. Box 928
Golden, Colorado 80402-0928
Phone: (303) 966-2025

2.0 Unit Description and Waste Characterization

The Building 883 nitric acid process waste system contains two tanks, T-1 and T-2, representing RCRA Units 40.27 and 40.28 respectively. The two 1,220-gallon tanks were utilized to capture spent nitric acid from the metal shaping and etching process. Ancillary equipment associated with the tanks includes pipes, pumps, valves and a process waste transfer line leading to Building 374. Diagrams of the process waste system components are shown on Figures 1, 2, and 3. Those diagrams also indicate portions of the tank system which did not manage hazardous waste and are therefore not subject to closure.

Waste water in the T-1 and T-2 tank system is characterized as corrosive, due to the nitric acid. Acids in the tanks were neutralized with caustic prior to transfer to the Building 374 evaporator for final treatment. The tank system is currently drained and isolated. Hardened uranium salts remain on the bottom of the tanks as a result of the neutralization process. In addition, some releases of waste occurred in the secondary containment surrounding the tanks, as evidenced by staining on the floor.

3.0 Closure Performance Standard

The closure performance standard specifies that hazardous waste facilities are to be closed in a manner that minimizes the need for further maintenance at the facility and protects human health and the environment by controlling, minimizing, or eliminating potential releases of hazardous waste to the environment (6 CCR, Section 265.111). Specific closure performance standards for each of the components of this system are defined as follows.

The tank information sheets (Figures 4 and 5) indicate that the tanks were authorized under interim status to manage a variety of waste codes. However, discussions with building personnel indicate that the nitric acid process waste system was characterized as hazardous due to the corrosive nature of the solution that it contained. Therefore, the closure process for the tanks and secondary containment area surrounding the tanks will involve manually removing the remaining salts, rinsing with clean water, and sampling of the rinsate for pH. The rinsate shall not exhibit the characteristic of corrosivity as defined in 6 CCR, Section 261.22. This closure process will eliminate the characteristic hazard of corrosivity. Following clean closure, portions of the tank system may be reused for non-hazardous waste water or alternatively stripped out and recycled or managed as non-hazardous waste.

Some portions of the system may be stripped out with no cleaning. In this case, the equipment will be stripped out, characterized, and appropriately managed as waste.

4.0 Closure Activities

The following sections provide specific information concerning the activities that will govern the RCRA closure of the tanks and ancillary equipment. If, at any time, closure of these systems becomes technically impractical or unsafe, any portion or all of the tank system may be stripped out, characterized, and managed appropriately.

4.1 Preparation of Work Controls

Work controls governing the closure activities will be prepared prior to initiating closure of this system. An engineering progression that logically closes the system will be developed for the tanks and ancillary equipment. The work controls will address health and safety requirements, preparation of radiological containment systems, personal protective equipment (PPE) needs, and waste packaging requirements.

4.2 System Closure Activities

4.2.1 Closure of Tanks T-1 and T-2 and Ancillary Equipment

Prior to washing, the salts and sludges in Tanks T-1 and T-2 will be manually broken up and removed to the extent practicable. If deemed necessary, an appropriate decontamination solution may be used for cleaning prior to the final rinsing. The tanks will then be rinsed with clean water and sampled for compliance with the closure performance standard. Samples will be drawn from valve vault #2. Waste liquids associated with this process will be transferred to Building 374 for treatment.

Some portions of the tank system such as piping may be stripped out prior to cleaning. In this case, the stripped out equipment will be visually inspected to ensure it is dry. If the equipment is dry (which indicates there are no corrosive wastes remaining), it will be managed as non-hazardous waste or recycled.

4.2.2 Closure of the Secondary Containment

The secondary containment floor surrounding Tanks T-1 and T-2 will be washed, rinsed, and sampled for compliance with the closure performance standard in Section 3.0 of this plan. Waste liquids associated with this process will be transferred to Building 374 for treatment.

4.3 Characterization and Disposition of Wastes Generated During Closure

Wastes to be generated during closure will consist of liquids, salts/sludges, and metal. The amount of hazardous waste is expected to be minimal. Any hazardous wastes produced will be stored in RCRA permitted storage units pending final treatment or disposal. Liquids and soluble salts/sludges will be transferred to Building 374 for treatment. Non-soluble salts/sludges will be characterized and managed appropriately as low-level radioactive wastes. Metal components are expected to be non-hazardous and therefore will be either managed as non-hazardous low-level waste or recycled. Wipes, disposable PPE, and plastics will be managed as non-hazardous low-level waste.

5.0 Waste Generation Rates

5.1 Estimated Liquid Waste

The estimated amount of liquid waste to be generated from the wash and rinse of the T-1 and T-2 tank system will be limited. Sufficient wash and rinse cycles will be utilized until the appropriate closure standards have been met. The amount of liquid waste to be generated from this closure activity is estimated to be less than 4,000 gallons.

5.2 Estimated Solid Waste

Solid waste generation will be directly related to the amount of equipment that is removed. The process waste tank system was utilized to transfer uranium bearing solutions. Therefore, the majority of the solid waste is expected to be low-level waste. Approximately 300 pounds of low-level waste metal is expected to be generated.

Additionally, there will be solid waste in the form of non-soluble salts/sludges and combustibles such as wipes, PPE, and plastic. It is estimated that approximately two 55-gallon drums of these low-level waste materials will be produced.

6.0 Certification of Closure

Within 60 days after completion of closure activities, the Site will submit, to the Colorado Department of Public Health and Environment, certification that the tanks, piping, ancillary equipment, and secondary containment, have been closed in accordance with the approved closure plan. The certification will be signed by the owner, or operator of the facility and by an independent, Colorado-registered professional engineer.

7.0 Criteria for Determining Post-Closure Care

The soils and ground water under Building 883 are discussed in the Historical Release Report, and may be contaminated. Consistent with the Rocky Flats Cleanup Agreement any contaminated soils below the T-1 and T-2 tank system will be addressed during when remediation of the soils under Building 883 commences.

8.0 Record Keeping

The site will maintain the following closure records until final closure of the facility.

- Record of sampling activities (date, number, and type)
- Analytical results
- Records of actions taken to decontaminate equipment or structures
- Work control packages governing the closure of this RCRA system
- Other documentation which verifies that the Site followed the approved closure plan

9.0 Amendment of Closure Plan

In conducting closure, unexpected events that occur during the implementation of required closure activities may require an amendment of the existing closure plan. Any request for the modification of the closure plan will be made within 30 days of identification of the event that causes modification to be necessary.

10.0 Closure Schedule

The closure of the Building 883 nitric acid process waste water tank system is expected to commence upon approval of this closure plan and be completed within 180 days, subject to the agreements, terms, and conditions of the Rocky Flats Cleanup Agreement. Following closure activities and verification of a successful project, Building 883 will be utilized by a contractor for proposed manufacturing purposes.

FIGURE 1
Building 883 Process Waste Line Floor Plan

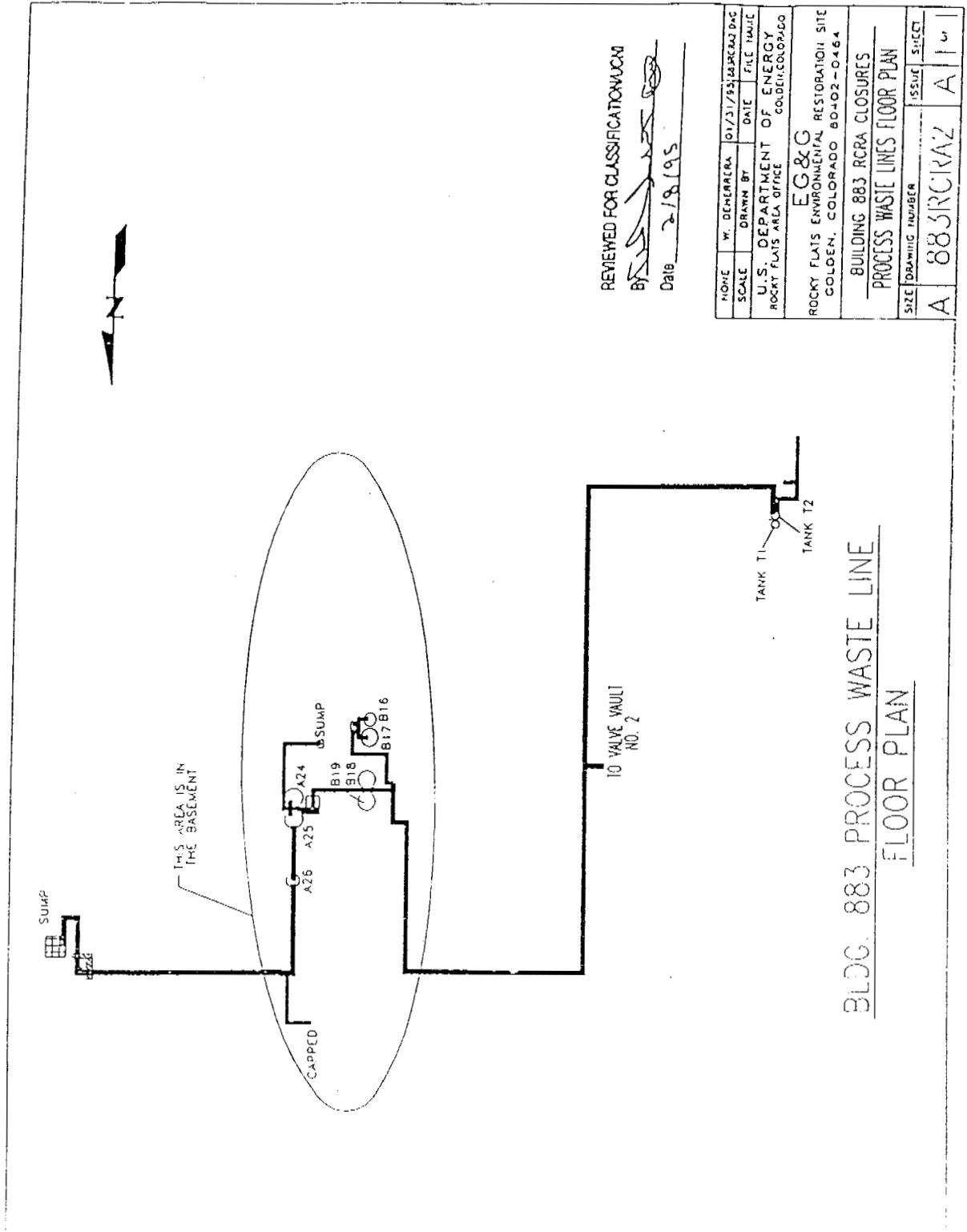


FIGURE 2
Secondary Containment Diagram

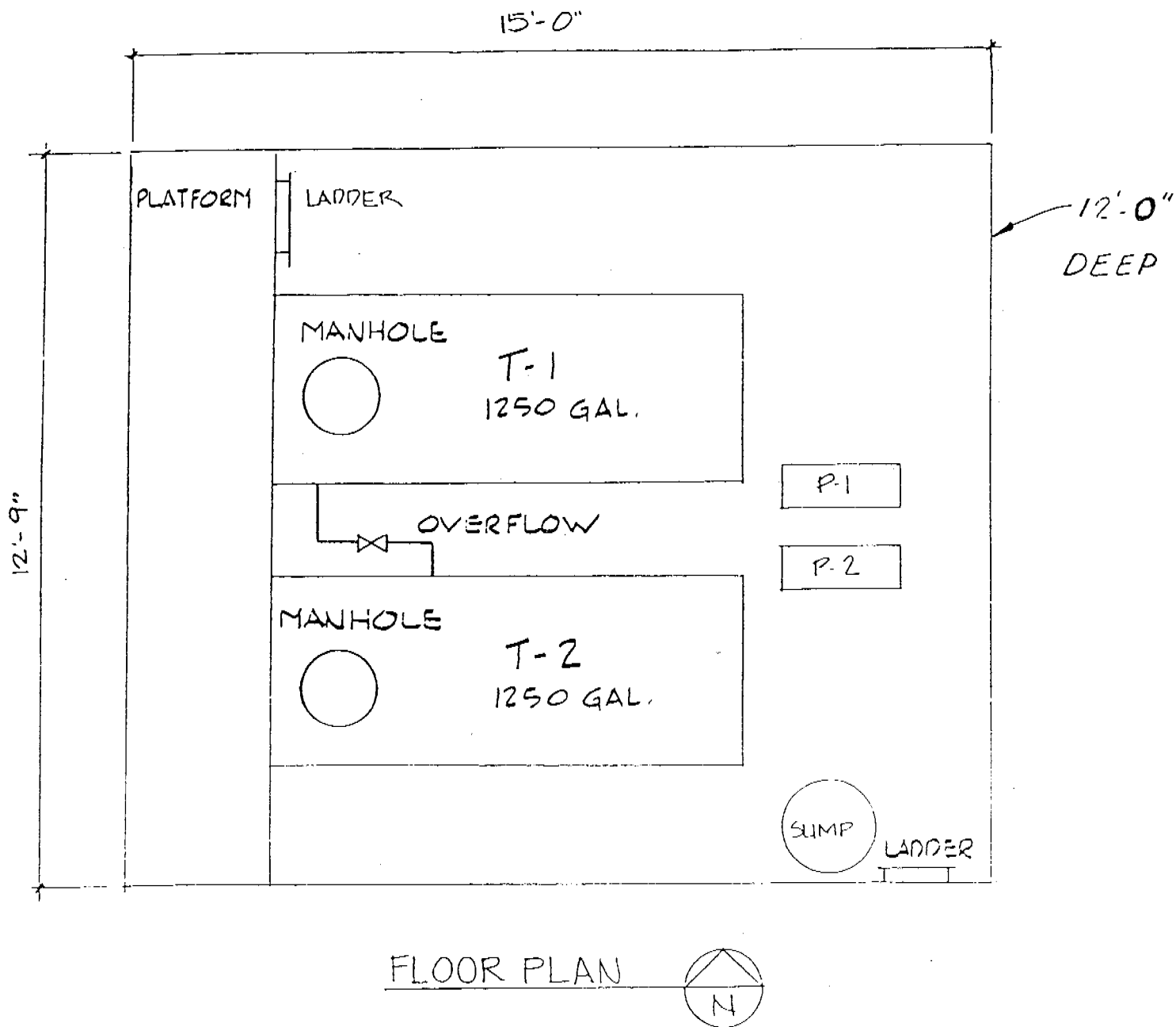


FIGURE 4

Tank Information Sheet

Unit Number:	40.27
Building:	883
Room:	139
Tank Number:	T-1
Tank Description:	Nitric Acid Waste Tank
Function:	Storage and Treatment
Capacity:	1,200 gal.
Dimensions:	3.25 ft. x 8.25 ft. x 6.0 ft.
Material of Construction:	Stainless Steel 304L
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

FIGURE 5

Tank Information Sheet

Unit Number:	40.28
Building:	883
Room:	139
Tank Number:	T-2
Tank Description:	Nitric Acid Waste Tank
Function:	Storage and Treatment
Capacity:	1,200 gal.
Dimensions:	3.25 ft. x 8.25 ft. x 6.0 ft.
Material of Construction:	Stainless Steel 304L
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 2
P&ID Drawing Number:	Figure 3
Unit Specific Conditions:	None

RCRA Closure Plan
Building 865/866/889
Process Waste Water Tank System
(Partial System Closure)

EPA ID No. C07890010526

August 1996

Exempt from Classification
Per CEX-003-95-RCRA Only

1.0 Introduction

1.1 Purpose

This closure plan identifies the process waste water tank system in Buildings 865, 866 and 889 that is to undergo Resource Conservation and Recovery Act (RCRA) closure at the Rocky Flats Environmental Technology Site (RFETS). This process constitutes partial RCRA closure of the RFETS facility. Closure of the tanks and the piping associated with this facility will eliminate all RCRA permitted features associated with the process waste system with the exception of below-grade piping and sumps.

1.2 Regulatory Requirements

This closure plan is being submitted in accordance with Section 265.112(d)(1) of the Code of Colorado Regulations (6 CCR), which requires that facilities intending to close interim status units submit a plan detailing the closure activities at least 45 days prior to commencing closure. This plan addresses specific closure requirements contained in 6 CCR, Part 265, Subpart G - Closure and Post-closure, and Subpart J - Tanks.

Although there is a regulatory requirement to demonstrate financial responsibility this is a government owned facility. Demonstration of financial responsibility is not required for government-owned facilities, pursuant to 6 CCR, Section 266.10(c).

1.3 Facility History

Rocky Flats Environmental Technology Site is owned and operated by the U.S. Department of Energy (DOE) and is co-operated by Kaiser-Hill Company, L.L.C. The original mission of the site was production of metal components for nuclear weapons. In support of this mission, Building 865 was utilized to machine and shape metal components such as uranium and beryllium. A metallography laboratory was also operated in Building 865. Building 889 was utilized as a decontamination facility. Process waste water from these operations was collected in five tanks located in Building 866 and subsequently transferred to the Building 374 evaporator for treatment.

Currently, Building 865 is being decontaminated and converted for economic development. A portion of the process waste system in Buildings 865/866 is currently being used for hazardous and non-hazardous waste waters. Following RCRA closure, this portion of the system will be used to collect non-hazardous waste water in support of metal recycling operations in Building 865. Building 889 is being decontaminated and decommissioned. Therefore, the portion of the process waste system which supports Building 889 is idle and will no longer be used.

1.4 Facility Contact

The RFETS contact for closure activities is:

Manager, Rocky Flats Field Office
U.S. Department of Energy
P.O. Box 928
Golden, Colorado 80402-0928
Phone: (303) 966-2025

2.0 Unit Description and Waste Characterization

The Building 865/866/889 process waste system contains tanks T-1, T-2, T-3, T-4, and T-5, representing RCRA Units 40.17, 40.18, 40.19, 40.32, and 40.33 respectively. The tanks were utilized to store process waste water solutions prior to transfer to the Building 374 evaporator for treatment. Diagrams of the process waste system components are shown on Figures 1, 2, 3 and 4. These diagrams also indicate portions of the tank system which did not manage hazardous waste and are therefore not subject to closure.

Tanks T-1, T-2, and T-3 are located in Building 866 and receive waste from Building 865. Process waste water was generated in Building 865 as a result of machining operations, decontamination of equipment, and disposal of excess chemicals. Process waste water from the metallography laboratory was also generated. Waste water from these sources potentially contained acids, bases, arsenic, barium, cadmium, chromium, lead, mercury silver, nickel, beryllium (in a non-hazardous waste form), hazardous solvents (e.g., methylene chloride, toluene, freon [1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, 1,1,1-trichloroethane], xylene, acetone), non-hazardous solvents, alcohols, and cleaners.

Tanks T-4 and T-5 are also located in Building 886 and received waste from Building 889. Process waste water was generated from decontamination activities in Building 889. Waste water from this source potentially contained acids, arsenic, barium, lead, mercury, silver, nickel, beryllium (in a non-hazardous waste form), hazardous solvents (e.g., methylene chloride, toluene, trichloroethylene, 1,1,1-trichloroethane, xylene, acetone) and cleaners.

Several below grade sumps and piping components are associated with the Building 865/866/889 tank system. Building 865 has piping located beneath the floor and three RCRA-regulated below-grade floor sumps. Those sumps consist of a small sump located within the electron-beam furnace pit in Room 145, a small floor sump near the center of room 145, and a small floor sump in room 144. A floor sump in Room 151A was previously known as RCRA Unit 40.47 but it never managed hazardous waste and therefore was withdrawn from RCRA regulation. Building 866 has one below grade

sump. Building 889 has two below grade sumps. The transfer piping between Buildings 886 and 889 is underground and out of service. The transfer piping between Building 866 and valve vault 6 is also underground but will remain in service.

Records associated with the secondary containment system in Building 866 indicate that some releases took place. There is some staining associated with the containment systems. Additionally, interviews with system operations personnel indicate that the secondary containment system may have been utilized for the design purpose.

3.0 Closure Performance Standard

The closure performance standard specifies that hazardous waste facilities are to be closed in a manner that minimize the need for further maintenance at the facility and protects human health and the environment by controlling, minimizing, or eliminating potential releases of hazardous waste to the environment (6 CCR, Section 265.111). Specific closure performance standards for each of the components of this system are defined below.

The tanks that reside in this system can be divided into two distinct systems. Tanks T-1, T-2, and T-3 have a variety of storage and process uses. Therefore, this portion of the system will be decontaminated and clean closed in place. Tanks T-4 and T-5 are small capacity metal tanks that have no future use. They will be stripped out and treated as hazardous debris.

The clean closure standard as discussed in the Rocky Flats Part B Permit will be utilized as the closure performance standard for final rinsate from tanks T-1, T-2, and T-3. While the tank information sheets in Figures 5 through 9 indicate the tanks were authorized under interim status to store a variety of waste codes, the tanks will be evaluated against clean closure standards for only the hazardous wastes that were actually managed in the tanks as described in Section 2.0 of this plan.

The closure performance standard proposed for the tanks T-4 and T-5 is to clean the surfaces that contacted RCRA-listed hazardous wastes to a clean debris standard using approved debris rule treatment alternatives and extraction technologies as defined in 6 CCR, Section 268.45, footnote 3 to Table 1:

"The surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to not more than 5 percent of each square inch of surface area."

Debris that is treated by an extraction or destruction technology as specified in 6 CCR, Section 268.45 not exhibiting the characteristic of a hazardous waste, will be managed as non-hazardous debris in accordance with 6 CCR, Section 268.45(c).

After decontamination, the tanks and equipment will be visually inspected to evaluate if the equipment has achieved the clean debris surface standard. If the inspection or cleaning becomes technically infeasible or unsafe due to radiological concerns, the resulting waste will be managed as RCRA-regulated hazardous waste. Upon meeting the closure performance standards, all decontaminated equipment will be packaged and managed according to waste type.

Additionally, the clean closure standard as discussed in the Rocky Flats Part B Permit will be utilized as the standard to which the floors will be decontaminated. As discussed above, the secondary containment will be evaluated against clean closure standards for only the hazardous wastes that were actually managed in the system as described in Section 2.0. If the final rinsate indicates that the standard has been achieved the floors will be considered closed. If the standards are not initially achieved, additional washing and rinsing will be conducted.

4.0 Closure Activities

The following sections provide specific information concerning the activities that will govern the RCRA closure of the tanks and ancillary equipment. If, at any time, closure of these systems becomes technically impractical or unsafe, any portion or all of the tank system may be stripped out, characterized, and managed appropriately.

4.1 Preparation of Work Controls

Work controls governing the closure activities will be prepared prior to initiating closure of this system. An engineering progression that logically closes the system will be developed for the tanks and ancillary equipment. The work controls will address health and safety requirements, preparation of radiological containment systems, personal protective equipment (PPE) needs, and waste packaging requirements.

4.2 System Closure Activities

4.2.1 Closure of Tanks T-1, T-2, and T-3

Tanks T-1, T-2, and T-3 are fiberglass tanks that have a potential future use. These tanks (and portions of ancillary equipment that are planned for future use) will be washed with an appropriate decontamination solution, triple rinsed, and have the rinsate sampled for the presence of organic constituents and heavy metals. Guidelines for

appropriate decontamination solutions can be found in the Rocky Flats Part B Permit. Samples will be drawn from valve vault #6. Waste liquids associated with this process will be transferred to Building 374 for treatment.

- 4.2.2 Tanks T-4 and T-5 will be removed in order to undergo cleaning and evaluation against the clean debris surface standards previously established. Tank removal will be performed using temporary containment structures. The containment area will be ventilated using portable HEPA filter air movers. A cutter will be utilized to size reduce the tanks into manageable pieces. The pieces will be transferred into a containment structure with an attached HEPA filter air mover, to ensure airflow movement away from personnel. Once into the containment structure, the system component will be cleaned with a carbon dioxide (CO₂) pressure cleaner or other approved decontamination method specified in 6 CCR, Section 268.45. The CO₂ cleaning process will take place in a containment structure that currently exists within Building 883. The advantage to this cleaning process is that it is aggressive and leaves no residue other than the materials that are removed from the equipment. Consequently, there is no generation of additional liquid wastes. After cleaning, the surface of each component will be visually inspected to evaluate if the closure standard has been met. If a clean surface has not been achieved, the process will be repeated. If a clean surface cannot be achieved with additional cleaning, the affected segment will be managed as hazardous debris. Furthermore, the containment structure for the CO₂ cleaner will be cleaned by removing residual hazardous wastes.

4.2.3 Closure of Above-Ground Ancillary Equipment Which Has No Further Use

The above-ground ancillary equipment associated with these tanks consists of pipes, sumps, valves, and pumps. These portions of the tank system in Buildings 865, 866, and 889 will be stripped out and managed as hazardous waste. Asbestos abatement will be required prior to removal of ancillary piping.

4.2.4 Closure of Below-Grade Piping and Sumps Which Have No Further Use

As discussed in Section 2.0 of this plan, the Building 865/866/889 process waste system has sumps and several piping components and transfer lines that are located below the floor slabs of the buildings. The sumps have been previously decontaminated and will be covered with durable materials and sealed. Below grade piping which has no further use (i.e., the piping beneath the floor of Building 865 and the underground transfer line between Buildings 866 and 889) will be isolated from use and left in place awaiting building demolition. This

closure process is consistent with the Rocky Flats Cleanup Agreement, which allows for deferral of complete RCRA closure until building demolition takes place. No RCRA inspections will be required for these portions of the tank system after they have been isolated.

4.2.5 Closure of the Secondary Containment

The secondary containment floor surround Tanks T-1 through T-5 will be washed, rinsed and sampled for compliance with the closure performance standard in Section 3.0 of this plan. Waste liquids associated with this process will be transferred to Building 374 for treatment.

4.3 Characterization and Disposition of Wastes Generated During Closure

Waste expected to be generated during closure consists almost exclusively of metal, asbestos-containing insulating material, PVC piping, and cleaning/rinsing solutions. Additionally, sludges and combustibles will be produced, characterized, and managed in accordance with applicable waste regulations.

All wastes will be packaged to meet appropriate waste containerizing requirements. The mixed waste, consisting primarily of sludges and piping, will be characterized and managed as hazardous waste pending final treatment or disposal. Metal materials from Tanks T-4 and T-5 are expected to meet clean debris surface standards and therefore will be managed as non-hazardous low-level waste. Metals that do not meet these standards will be characterized as low-level mixed hazardous waste and will be assigned appropriate EPA hazardous waste codes. PPE, as well as contamination control plastic, adhesive material, and wipes, will be managed as low-level radioactive waste or low-level mixed waste as appropriate.

5.0 Waste Generation Rates

5.1 Estimated Liquid Waste

The estimated amount of liquid waste to be generated from the wash and rinse of Tanks T-1, T-2, T-3, and the secondary containment is determined by the physical dimensions of the system components. Sufficient wash and rinse cycles will be utilized until the appropriate closure standards have been met. The amount of liquid waste estimated to be generated from this closure activity is estimated to be less than 2,000 gallons.

5.2 Estimated Solid Waste

Solid waste generation will be directly related to the amount of equipment that is removed. The process waste tank system was utilized to transfer a variety of solutions, all of which leave little or no residue following washing and rinsing. The majority of the solid waste is expected to be low-level waste. Considering the process waste system tanks, piping, and pumps, three tons of low level waste are expected to be generated.

Additionally, there will be solid waste in the form of combustibles such as wipes, PPE, and plastic. It is estimated that approximately three 55-gallon drums of low-level waste materials and three 55-gallon drums of TSCA (asbestos) waste produced.

6.0 Certification of Closure

Within 60 days after completion of closure activities, the Site will submit, to the Colorado Department of Public Health and Environment, certification that the tanks, piping, ancillary equipment, and secondary containment, have been closed in accordance with the approved closure plan. The certification will be signed by the owner, or operator of the facility and by an independent, Colorado-registered professional engineer.

7.0 Criteria for Determining Post-Closure Care

The soils and ground water under Buildings 865, 866 and 889 are discussed in the Historical Release Report, and may be contaminated. Additionally, below grade piping and sumps will not be entirely decontaminated. Consistent with the Rocky Flats Cleanup Agreement, those portions of the Building 865/886/889 tank system will be deferred until remediation of the soils under those buildings commences.

8.0 Record Keeping

The site will maintain the following closure records until final closure of the facility.

- Record of sampling activities (date, number, and type)
- Analytical results
- Records of actions taken to decontaminate equipment or structures
- Work control packages governing the closure of this RCRA system
- Other documentation which verifies that the Site followed the approved closure plan

9.0 Amendment of Closure Plan

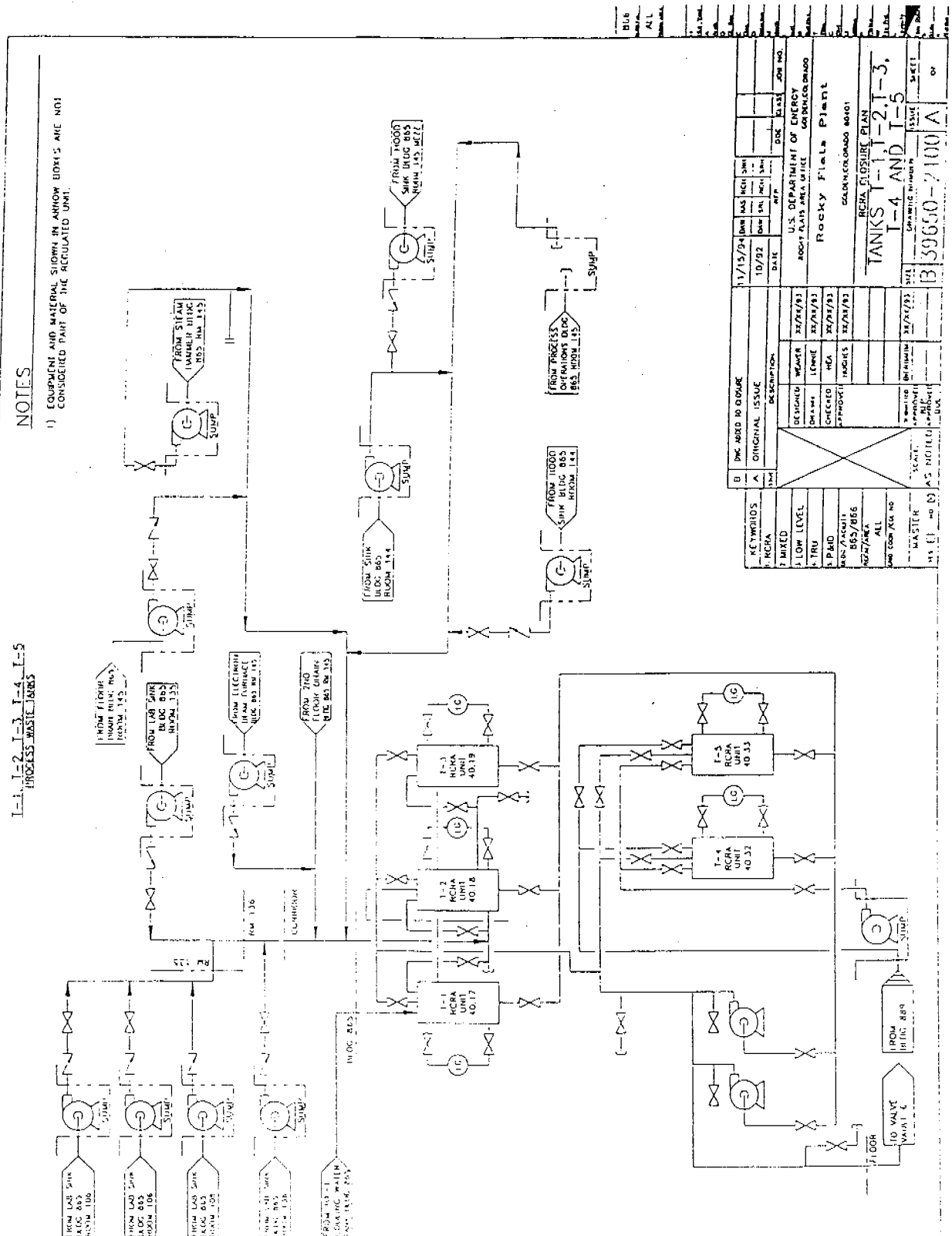
In conducting closure, unexpected events that occur during the implementation of required closure activities may require an amendment of the existing closure plan. Any request for the modification of the closure plan will be made within 30 days of identification of the event that causes modification to be necessary.

10.0 Closure Schedule

The closure of the Building 865/866/889 process waste water tank system is expected to commence upon approval of this closure plan and be completed within 180 days subject to the agreements, terms, and conditions of the Rocky Flats Cleanup Agreement. Following closure activities and verification of a successful project, Buildings 865/866/889 will be utilized by a contractor for proposed manufacturing purposes.

FIGURE 2

Tanks T-1, T-2, T-3, T-4, and T-5
Piping and Instrumentation Diagram



COMPUTER-GENERATED, NO MANUAL CHANGES ALLOWED

FIGURE 3
Building 866 Process Waste System Closure Sample Locations

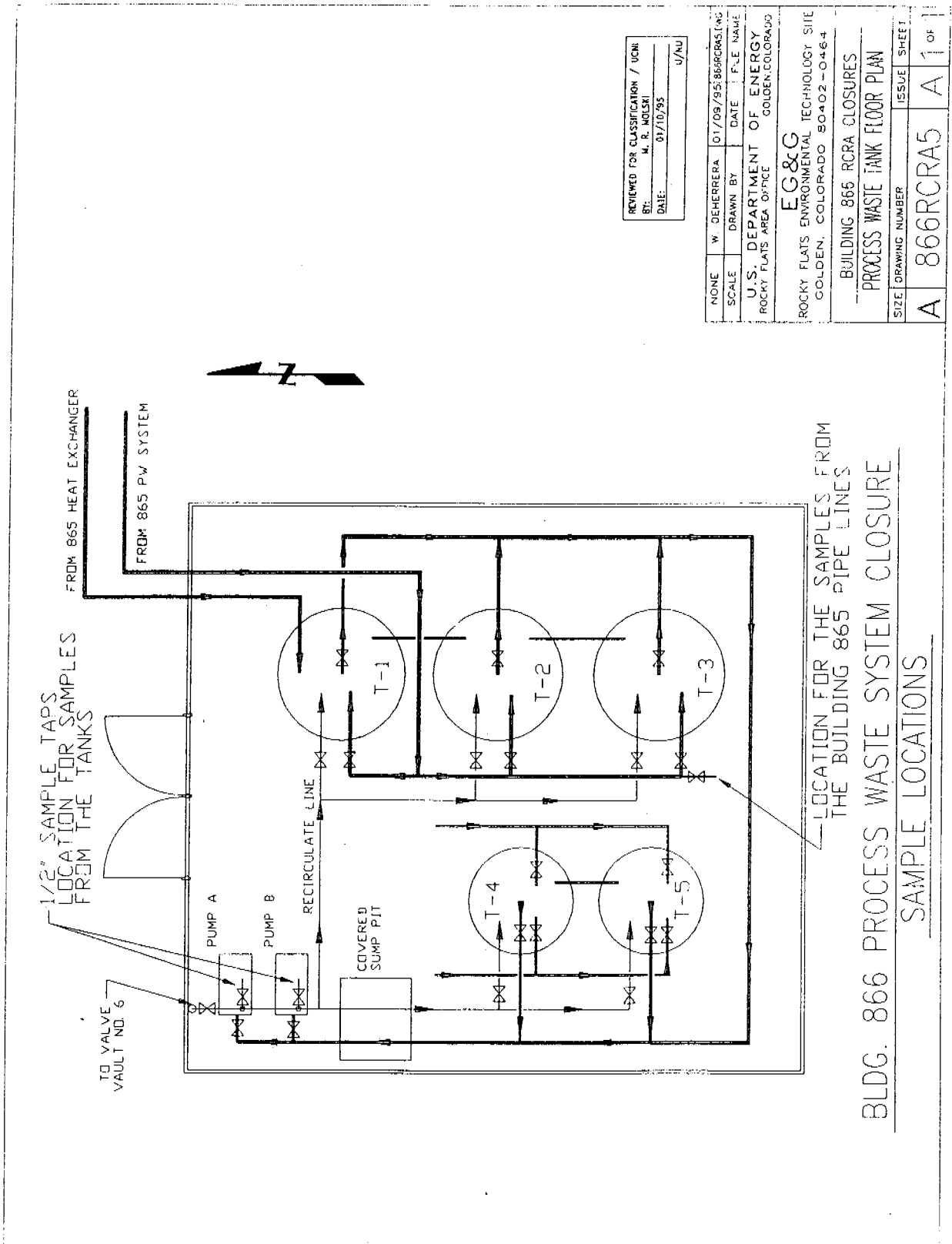
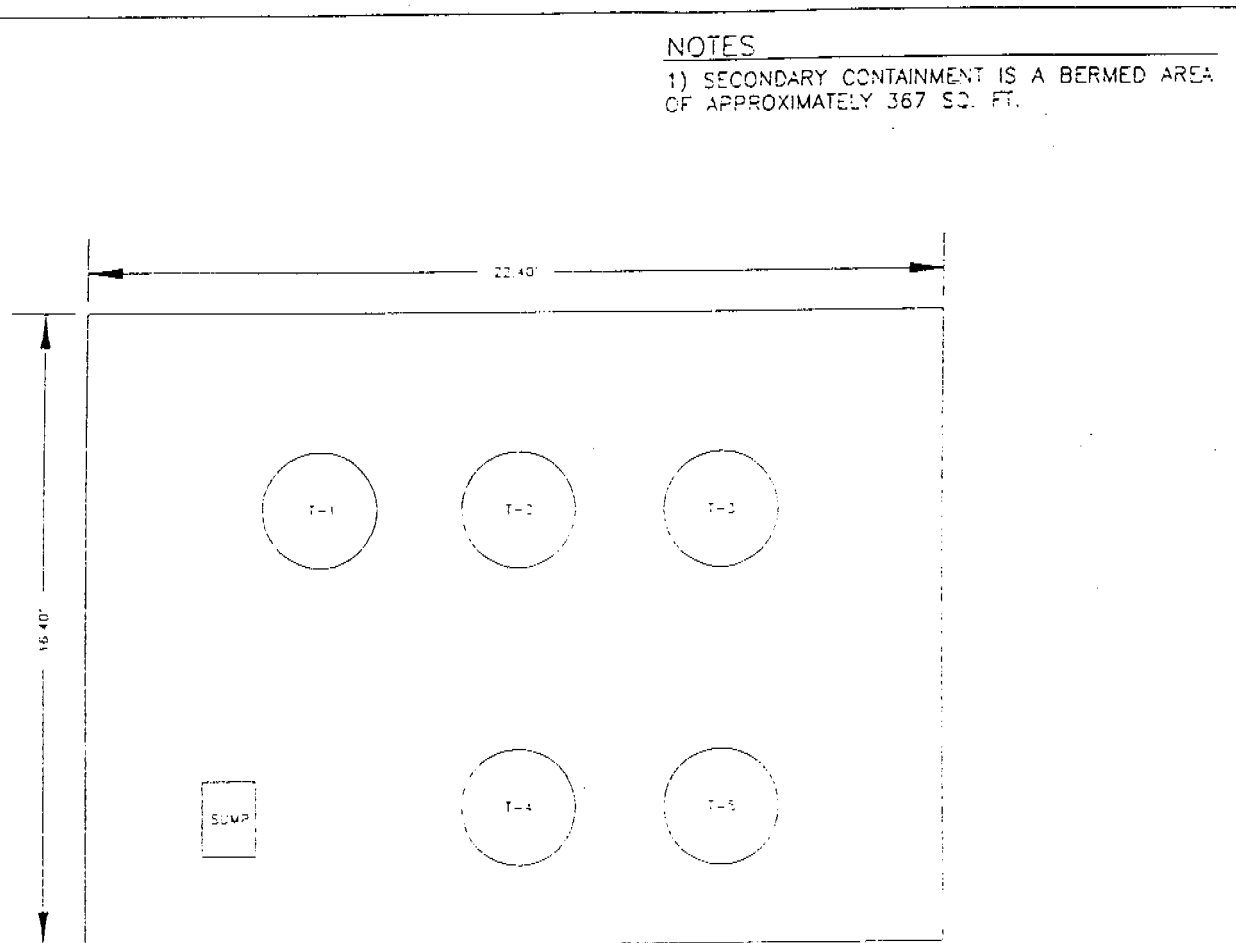


FIGURE 4
Building 866 Secondary Containment



KEYWORDS	B	DESIGNED TO CLOSE	11/15/92	DESIGNED BY	SPH
ISSUE	A	ORIGINAL ISSUE	10/92	DESIGNED BY	SPH
DESCRIPTION	U.S. DEPARTMENT OF ENERGY ROCKY FLATS AREA OFFICE Rocky Flats Plant GOLDEN, COLORADO 80401 RCRA CLOSURE PLAN BLDG 866 SECONDARY CONTAINMENT				
DESIGNED BY	SPH	10/14/92	CHECKED BY	SPH	10/14/92
DRAWN BY	SPH	10/14/92	CHECKED BY	SPH	10/14/92
APPROVED BY	SPH	10/14/92	CHECKED BY	SPH	10/14/92
SCALE	NONE				
DRAWING NUMBER	B 39650-2375 A				

COMPUTER GENERATED. NO MANUAL CHANGES ALLOWED.

FIGURE 5

Tank Information Sheet

Unit Number:	40.17
Building:	866
Room:	All
Tank Number:	T-1
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	1,200 gal.
Dimensions:	5.0 ft. D. x 8.1 ft. T-T
Material of Construction:	Fiberglass Reinforced Plastic
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 4
P&ID Drawing Number:	Figure 2
Unit Specific Conditions:	None

FIGURE 6

Tank Information Sheet

Unit Number:	40.18
Building:	866
Room:	All
Tank Number:	T-2
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	1,200 gal.
Dimensions:	8.1 ft. T-T x 5.0 ft. D
Material of Construction:	Fiberglass Reinforced Plastic
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 4
P&ID Drawing Number:	Figure 2
Unit Specific Conditions:	None

FIGURE 7

Tank Information Sheet

Unit Number:	40.19
Building:	866
Room:	All
Tank Number:	T-3
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	1,200 gal.
Dimensions:	8.1 ft. T-T x 5.0 ft. D
Material of Construction:	Fiberglass Reinforced Plastic
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 4
P&ID Drawing Number:	Figure 2
Unit Specific Conditions:	None

FIGURE 8

Tank Information Sheet

Unit Number:	40.32
Building:	866
Room:	All
Tank Number:	T-4
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	400 gal.
Dimensions:	3.3 ft. T-T x 4.5 ft. D
Material of Construction:	Stainless Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 4
P&ID Drawing Number:	Figure 2
Unit Specific Conditions:	None

FIGURE 9

Tank Information Sheet

Unit Number:	40.33
Building:	866
Room:	All
Tank Number:	T-5
Tank Description:	Process Waste Tank
Function:	Storage
Capacity:	400 gal.
Dimensions:	3.3 ft. T-T x 4.5 ft. D
Material of Construction:	Stainless Steel
Approved Waste Codes (Unit 40):	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D035, D038, D040, D043, F001, F002, F003, F005, F007, F008, F009
Waste Descriptions:	Liquid Low-Level Mixed Waste
Secondary Containment	
Type:	Coated Concrete
Drawing Number:	Figure 4
P&ID Drawing Number:	Figure 2
Unit Specific Conditions:	None